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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,775	07/02/2003	Kuo-Hsing Cheng	4728P042D	5019

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EXAMINER

HARRISON, CHANTE E

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 11/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/612,775	Applicant(s) CHENG ET AL.	
	Examiner Chante Harrison	Art Unit 2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 1-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/04 & 5/04</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This action is responsive to communications: Preliminary Amendment, filed on 7/2/03.
2. Claims 18-21 are pending in the case. Claims 18-21 are independent claims. Claims 1-17 have been canceled.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vij Rajarajan et al, US 2002/0109704, 8/2002.

As per independent claim 18, Rajarajan discloses displaying (V, E) pairs on an initial V-E plain shown on a monitor screen to observe the said initial (V, E) pairs distributed condition, wherein said V indicates nodes and wherein said E indicates edges (i.e. displaying on a viewing surface the design model consisting of nodes and edges/arcs representing an integrated circuit (pp. 1, Para 2 & 3; pp. 3, Para 26); setting L nodes x W edges (V, E) pairs rectangle region to compose a block, wherein (i.e. projections represent the model elements, which include nodes and edges/arcs; projections have

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coordinates such as x, y, height, width and z, specified by a bounding rectangle) (pp. 5, Para 41; pp. 10, Para 100); defining the more (V, E) pairs in said block to be displayed by the relatively high light intensity to the less (V, E) pairs in said block (i.e. interfaces/methods are provided to select groups of elements that include nodes and edges/arcs; interfaces are provided when hovering over elements; and hovering effects the highlight of elements by changing the hue of the elements) (pp. 7, Para 65 & 66; pp. 16, Para 176); and watching relatively large size of V-E plain or a whole V-E plain to said initial (V, E) plain on said monitor screen, wherein said exact (V, E) pairs positions still be held, thereby zooming in said V-E plain to watch detail local (V, E) pairs distributed condition, or zooming out to watch global (V, E) pairs distributed condition on said monitor screen (i.e. the graph surface and the projections of nodes and edges/arcs bounded by a rectangle may be zoomed) (pp. 6, Para 52; pp. 9, Para 87; pp. 16, Para 177).

Rajarajan fails to specifically disclose nodes represent components of said circuit, edges represent the nets of said circuits, and L and W are integers.

Rajarajan teaches nodes and edges/arcs are elements projected on a diagram having a type-specific behavior that is relative to the project type and the elements behavior is also type-specific (pp. 5, Para 45 & 47). Rajarajan further teaches the surface coordinate values are expressed in pixels (pp. 6, Para 53).

It would have been obvious to one of skill in the art to incorporate nodes representing components of said circuit and edges representing the nets of said circuits with the disclosure of Rajarajan because an integrated circuit design tool uses elements

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to represent an electrical wiring system and an electrical wiring system includes components and nets corresponding to the components. Additionally it would have been obvious to one of skill in the art to further incorporate L and W as integers with the disclosure of Rajarajan because pixels are linearly displaced and linear displacement represents integer values.

As per independent claim 19, defining the less (V, E) pairs in said block to be displayed by the relatively high light intensity to the more (V, E) pairs in said block (i.e. interfaces/methods are provided to select groups of elements that include nodes and edges/arcs; interfaces are provided when hovering/dragging/dropping/connecting elements; hovering is a means of selecting elements and it effects the highlight of elements by changing the hue of the elements; and when drawing fewer projections are visibly altered) (pp. 7, Para 65 & 66; pp. 8, Para 75; pp. 16, Para 176). The rationale applied in the rejection of claim 18 applies herein.

As per independent claim 20, the rationale applied in the rejection of claim 18 applies herein.

As per independent claim 21, the rationale applied in the rejection of claim 18 applies herein.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chante Harrison whose telephone number is 703-305-3937. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on 703-305-4713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chante Harrison
Examiner
Art Unit 2672

Ceh
November 19, 2004


JEFFERY BRINER
PRIMARY EXAMINER